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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,893	06/08/2001	Yehuda Elmaliach	1081-US	7229
24505	7590	09/20/2004	EXAMINER	
DANIEL J SWIRSKY PO BOX 2345 BEIT SHEMESH, 99544 ISRAEL			DALENCOURT, YVES	
			ART UNIT	PAPER NUMBER
			2157	

DATE MAILED: 09/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,893

Applicant(s)

ELMALIACH ET AL.

Examiner

Yves Dalencourt

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-14 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>04/22/2002</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is responsive to communication filed on 06/08/01.

Specification

The abstract of the disclosure is objected to because it is exactly the same as claim 1. Applicant is required to modify the abstract in order to differentiate it from the claim. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Kenney et al (US 2002/0122422; hereinafter Kenney).

Regarding claim 1, Kennedy teaches a method for class-based per-flow queuing across multiple hierarchical link-sharing structures, wherein each of said structures shares a single link, wherein each of said structures comprises a plurality of leaves, wherein each of said leaves represents a single flow, and wherein each of said leaves is common to each of said structures (figs. 3A and 4A; paras. 0065 – 0068, and 0074

Art Unit: 2157

Kenney discloses that policy 40 can include more than one link classification hierarchy), the method comprises the steps of providing a leaf selection mechanism operative to enforce a plurality of rules adapted for said multiple hierarchical link-sharing structures (para. 0068; Kenney discloses a class-based queuing class that includes criteria characterizing the flows that the class will govern); and selecting in response to applying said leaf selection mechanism one of said leaves for servicing during a transmission opportunity (paras. 0069 - 0072).

Regarding claim 2, Kennedy teaches a method for class-based per-flow queuing across multiple hierarchical link-sharing structures which, further comprises the steps of updating operating parameters of said multiple hierarchical link-sharing structures to reflect resource usage by said leaf serviced during said transmission opportunity (paras. 0074; Kenney discloses that policy 40 allows administrative parameters to control session bandwidth, admission control, and adds schedule 41 to a link classification hierarchy, allowing policy 40 to change based on time of day).

Allowable Subject Matter

Claims 3 – 14 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: As specifically claimed the art of record fails to teach, among other limitations, in combination, a method for class-based per-flow queuing across multiple hierarchical link-sharing structures, the method comprises the steps of distributing at least one of a plurality V of tokens to each of a plurality of hierarchical link-sharing structures, wherein

Art Unit: 2157

each of said structures shares a single link, wherein each of said structures comprises a plurality of leaves, wherein each of said leaves represents a single flow, and wherein each of said leaves is common to each of said structures; and selecting one of said leaves having at least V tokens for servicing during a transmission opportunity.

The closest prior art (US 2002/0122422 A1) discloses a link-sharing classification hierarchy, characterizing network traffic at a high level both to allow measurements of network traffic to be aggregated according classifications in the hierarchy and to describe a policy for network quality of service. Such prior art fails to teach the claimed limitations as described above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hauser et al (US Patent Number 5,889,956) discloses a hierarchical resource management with maximum allowable allocation boundaries.

Li et al (US Patent Number 6,560,230) discloses a packet scheduling methods and apparatus.

Forrest L. Rose (US Patent Number 6,519,595) discloses an admission control, queue management, and shaping/scheduling for flows.

Art Unit: 2157

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (703) 308-8547. The examiner can normally be reached on M-TH 7:30AM - 6: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yves Dalencourt


September 14, 2004


SALEH NAJJAR
PRIMARY EXAMINER